

The Truth About Alcohol

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This booklet is a collection of articles contributed to "The Free Lance," and edited, revised, and arranged to form a complete unit. In it I have endeavored very briefly to condense a few of the results of recent investigation of the action of alcohol. I have quoted from different recognised authorities and have given a fair, up-to-date statement of the truth as I see it.

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THE TRUTH ABOUT ALCOHOL

Its Origin and Formation

The statement has been made that alcohol is found in the presence of living structures (cells), and is a product of their activity. This is true, but what kind of living cells? We have two great processes in nature running concurrently, the one producing, growing, developing; the other disintegrating, destroying, decaying. The agents of this latter process are small vegetable growths called bacteria, parasites, and germs. Alcohol is one of the products of this latter breaking-down process, and is formed from organic compounds containing starch or sugar.

But let me emphasize the fact that alcohol is formed, not during the process of growth, but only in the process of decay. It is present as a product of disintegration. It is formed in the death of the substance. Alcohol is not the product of living, growing nature. It is a waste product in the activity of disintegrating germs. In strict scientific language alcohol is one of the toxic substances formed by nature in her efforts through the agency of germs to break up organic matter, and restore it to its primitive gaseous constituents, to be again, through the agency of new life, built up into organic compounds.

A Narcotic, not a Stimulant

Alcohol is a product of death, found only associated with decaying organic material that has been exposed to germ life.

There has been not a little misapprehension, not only in the minds of the public, but also among those who have a considerable scientific knowledge, of the true action of alcohol. Formerly it was considered a stimulant, but today this substance is classified among the narcotics, which include drugs like ether and chloroform that have a twofold action; a primary, temporary exciting, and a secondary prolonged depressant action.

It is for this temporary initial excitation that it is sought after by the taker of morphine as well as alcohol. In both cases the sense of betterment is due to the deadening of the higher centres where appreciation or discomfort is registered. Under alcohol this power is lowered. The feeling of wretchedness or ner-

vousness before impending effort is lessened. Hence the partaker feels "more himself," and imagines himself stimulated. In fact he does not feel his depression, because he has put his brain partly to sleep.

No one who takes alcohol can justly interpret his own condition, for practically all scientists who have investigated this matter, agree that in ninety-nine cases out of a hundred, the first thing alcohol does to the imbibor is to affect his mentality and to cloud his judgment. He who takes the alcohol is quite unconscious that it has this effect.

There is no proof that alcohol either strengthens the heart or increases the blood pressure. In fact, so far as the stimulating effects of alcohol are concerned, after careful experiments by the most delicate scientific instruments and laboratory methods alcohol as a stimulant has been weighed in the balances and found wanting

Action on Digestion

Although the feeling of pain in the stomach, so often associated with indigestion, can be relieved by alcohol through its benumbing action, it is a mistake to conclude that the stomach is benefited or digestion improved. The alcohol has merely deadened the gastric nerves and the condition causing the pain is therefore disguised, not removed, and the real diseased condition too often aggravated.

Sir William Roberts, F.R.S., conducted a series of tests as to the action of alcohol upon digestion. He showed that the presence of alcohol did not appear to accelerate the process of digestion, and that where alcohol was present, to the extent of one per cent, digestion was definitely retarded. It has also been shown that when the digestive power of the stomach is low the retarding influence of alcohol is greater. We, therefore, conclude that in normal digestion alcohol, in the quantity found in many beverages, is injurious to digestion, and in weakened conditions is even more injurious.

It is not denied that the irritation of alcohol on the lining of the stomach may cause a temporary increase of gastric juice, but with this is also an increase of mucous which hinders absorption and favors fermentation. All glands, when caused to over-secrete suffer a corresponding decrease in activity. So with the stomach. This secondary effect of alcohol often leads to permanent impairment.

While all the organs of digestion suffer from the effects of alcohol, the liver is specially affected. In the attempt upon the part of the system to destroy (oxidize) the poison, so as to prevent it entering the general circulation, serious damage results. Enlargement, and afterwards contraction takes place, causing destruction of the liver cells with subsequent dropsy, and often death. This condition "hob-nailed" or "gin drinkers' liver" is usually caused by

the frequent taking of small doses of alcohol. A fatal disease may thus develop without the individual ever being "under the influence of liquor."

But what about "bitters?" While the bitter principle of some drugs is of considerable value in relaxed conditions, this cannot be said of hops which contain a substance that causes drowsiness and interferes with mental and physical activity. We must remember that we cannot improve upon nature's processes by a constant resort to drugs of any kind.

There is no evidence to show that alcoholic liquors permanently assist the digestive processes. On the contrary the continual use tends to develop chronic indigestion with serious organic disease of the digestive organs.

Not a Food

"It is only lately that we have begun to regard alcohol in its true light, as a drug and not as a food."—Sir Spencer Wells Bart, M.D., F.R.S.

The dire necessity for a plausible excuse for drinking alcoholic liquors, still keeps the question of the food value of alcohol in the limelight. Before discussing food value, let us first get a full understanding of what a food is.

According to our present knowledge a food must meet at least one of the following conditions: It must provide substance for bodily growth, muscular energy, bodily heat, or prevent bodily waste, and when taken in moderate but repeated quantities it must not injure the body.

First as to alcohol producing any material for bodily growth. The inability of alcohol to meet this indication has never been questioned. The apparent bulk sometimes seen after alcoholic liquors have been used for some time is almost invariably due to accumulation of fatty matter, which through the depressing influence of alcohol the system was not able to eliminate. This accumulation may become decidedly detrimental and lay the foundation of serious disease.

As to the production of muscular energy, experiments have shown that while some temporary increase of muscular energy usually follows the drinking of alcoholics, the ability for sustained efforts is always impaired. Industry, athletics, and the strain of war corroborate the above statement, and prove beyond a doubt that alcohol interferes with the development of muscular force. Listen to the statement of Sir Frederick Treeves, surgeon to the late king:

"Troops cannot work or march on alcohol. I was with the relief column that moved on to Ladysmith. It was an extremely trying time on account of the hot weather. In that enormous

column of thirty thousand men the first who dropped out were not the tall men or the short men, or the big men or the little men. They were the drinkers, and they dropped out as clearly as if they had been labelled with a big letter on their backs.

As to the maintenance of bodily heat, while we admit that a small amount of alcohol can be oxidized or burned in the body and thus produce a measure of heat, it in no way goes to show that alcohol is a food. Many poisons are thus dealt with; in fact, it is one of nature's methods of getting rid of a poison. What we call typhoid fever is the oxidization in the system of a poison produced by the typhoid germ. We have never yet tried to prove that because typhoid poison is oxidized it is therefore a food. The fact proved beyond a shadow of a doubt is, that the bodily heat is lowered by alcohol, first by the depression of the vital activity due to the effect of the alcohol, and second to the dilatation of the surface blood vessels which causes more heat to escape from the body.

As to the prevention of bodily waste, experiments have shown that in the presence of diminution of food the administration of alcohol does not diminish the amount of albuminous material thrown out from the body. But alcohol may lessen the sensation of hunger by its deadening effects upon the nerves, thus giving a deceptive sense of satisfaction, but subsequent exhaustion is by no means prevented.

As to the question of alcohol in small quantities doing no injury to the body, the reader is referred to the tables contrasting the life expectancy of moderate drinkers compared with that of total abstainers, which will be fully dealt with in its due place.

Professor Attwater, whose experiments have brought so prominently before the public the fact that a certain amount of alcohol is burned up in the system, looked at this matter from a chemical standpoint, and treated the human body as a non-sentient, metallic crucible that is as immune to poisons as a mortar is to charcoal. But even he who is so often quoted as in favor of the free use of alcohol makes the following statement:

The moderate use of alcohol is filled with danger. Alcohol could not be called a food-stuff in the ordinary sense of the word. The net result of its use is an injury, and not a benefit.

Yes, alcohol is a food. It feeds the fires of passion, it feeds the penitentiary and the asylum, it furnishes nourishment for all degenerating and debasing influences.

Action on the Blood

We have two great enemies harassing us—germs within and Germans without; the former ever endeavoring to destroy the principal ingredients of our blood, to disintegrate the life-forces and de-

stroy our bodies; the latter endeavoring to destroy the product of social evolution and to pervert national ideals. The effect of alcohol upon the preservers of national freedom has been dealt with in another article; in this we will consider the action of alcohol upon the body defenders, the little microscopical sentries in our blood, the white corpuscles, whose chief duty appears to be the guarding of the system from attacks of minute germs that are the cause of our epidemics, and different forms of blood poisons.

The blood corpuscles never sleep. They are always on duty, and on their fitness depends our tenure of life. While the red corpuscles carry oxygen to all parts of the body, the white corpuscles are always upon the lookout to catch any microbe, bacilli or germ that may intrude. Alcohol interferes with the action of the white corpuscles, partly paralyzing them, and lessens their ability to destroy these invading germs, consequently the blood is less capable of dealing with infections and the resisting power of our bodies is decreased.

The liquid part of the blood also is affected and its power to resist disease also lessened by the action of alcohol. Recently it has been discovered that the blood contains a chemical substance that assists in the fight against microbes, and if this is not present we are more susceptible to infectious disease. The inability of beer drinkers to resist erysipelas and blood infections is well known. In former days alcohol was given to help the patient resist the microbes. This we now know is the very worst thing that could be done, because even a small quantity of alcohol decreases the activity of that chemical substance which enables the white corpuscles to deal successfully with the invaders.

Experiments showing the effects of alcohol upon the power of the blood to resist the bacillus of typhoid fever have proved that in all cases in which the blood was alcoholized the resistance was lowered. This bacillus will grow upon broth. If to that broth is added a small amount of human blood, and to this is added some typhoid bacilli, before long little colonies of these bacilli will be developed. It was found that in case of an abstainer these bacilli were decidedly fewer than in the case of a person who was in the habit of taking alcohol. ~~The same was true~~ when the blood was taken from a person who drank only one glass of beer a day. The blood had not the same power to frustrate the growth of the typhoid germ as had the blood of the abstainer.

The laboratory, hospital, and the asylum join in the verdict, "Wine Is a Mockery."

Action on the Brain

A celebrated scientist who made the action of alcohol a study for years makes the following statement: "The powers of conception and judgment are from the beginning distinctly affected, although he who takes the alcohol is quite unconscious that it has this effect."

Alcohol attacks the different parts of the brain with an intensity in inverse ratio to their development. The parts presiding over the simple functions of circulation and respiration resist the action of the poison the longest, while those connected with the higher faculties of conscience, self-control, and judgment are the first to succumb. These higher centres which should preside over and control the lower functions being set aside by the poisonous effect of alcohol upon the brain, the emotions run riot, love may become passion; joy changes into orgy; courage into recklessness. Self-control (the Captain's on the bridge) being paralyzed, the individual is the sport and play of the lower nature. In fact he falls from man's estate, from the condition of moral consciousness and responsibility to base animalism.

This deadening of the brain cells where are registered the ideals on which we depend for normal conduct causes many serious lapses of self-control. By the effect upon the part of the brain through which we express all that is highest and best in race development, the result of culture and refinement, the product of the development of evolutionary and educational forces, we see that the saloon thus becomes the enemy of all that is brightest and best in human life, and opposed to all race-elevating influences. It rolls the wheels of progress backwards, and in its deadening effect upon the higher nerve centres predisposes irresponsibility, insanity and crime. The individual becomes careless as to ordinary social duties and obligations.

A brain poisoned with alcohol becomes callous to duty and leads to a disregard of sense of honor and rectitude of dealing. Those who lead immoral lives frequently depend upon alcohol for this deadening of conscience. The abstract ideal of the duties of citizenship disappear. This is true also of national life. In fact the greatest barrier that is met with in efforts of social uplift is the deadening of all higher thought and personal initiative which is essential for the preservation and development of a nation.

Scientific investigation shows that 50 per cent of the suicides are the result of the deadening effect of alcohol upon the higher brain centres.

Alcohol strikes a man at his point of highest development, the part of the brain through which his highest intellectual, moral and

spiritual nature is made manifest. This part, being of more recent development, and less resisting than the other and functionally older parts of the brain, succumbs first. With that product of development destroyed by the alcoholic poison, man loses his manhood and sinks often below the level of the beast.

Action on the Nerves

The action of long-continued use of alcohol upon the nerves is now a recognized cause of serious and frequently non-curable conditions. When a portion of a nerve diseased through alcohol is examined under the microscope it is found that the cell elements have been partially destroyed. This is what we might expect knowing that alcohol is a powerful nerve poison. The two diseases of nerves caused by alcohol which we so frequently meet are alcoholic neuritis (inflammation of the nerves) and alcoholic paralysis, the latter but the terminal stage of the former.

Alcoholic Neuritis often appears as the first revelation of the habit of secret drinking, especially among women. It is preceded by neuralgic pains and tingling in the feet and hands. As the disease extends paralysis sets in, at first in the feet and legs. An epidemic of neuritis occurred in the Midland Counties of England which was traced to the use of beer containing small quantities of arsenic (Osler). Occasionally the taking of alcohol medicinally (as it used to be given in prolonged illness like typhoid fever), leads to this disorder. This condition requires total abstinence as the first factor in its cure.

When we remember that the nerves are the media of connection between the brain and all the organs, that all our bodily activities are presided over and regulated by the impulses sent out along these nerves, then we can realize to a certain extent how, through the disease of the nerves, the proper regulation and control over all organs and functions becomes interfered with. This is frequently the explanation of many obscure conditions of debility that tend to baffle diagnosis.

Although epilepsy is considered more a manifestation of brain than nerve disease, a reference to it here is not out of place. Alcohol may, in one who possesses congenitally an unstable brain, cause convulsive seizures even if taken in small quantities. Chronic alcoholics frequently become epileptic. Convulsive attacks in children are often associated with the administration of alcohol even when the only avenue is through the mother's milk. Listen to Dr. Mort, pathologist to the London Asylums:

"Alcohol even in comparatively small quantities may convert the potential lunatic into a raving maniac, and it is specially dangerous to the epileptic and feeble-minded, leading in the former to the

production of motor and mental fits, and making him irresponsible and anti-social, and sometimes very dangerous to himself and others. The quantity of alcohol which is daily consumed by the pillars of society is quite sufficient to convert an epileptic or a potential lunatic or certain feeble-minded individuals into criminals or lunatics."

The question is often asked, what is the smallest amount of alcohol that we can use with impunity? The answer is, science knows no such amount, but it does know that man can develop his powers and achieve the best by rigid total abstinence.

Its Relation to Insanity

In the discussion of this aspect of the alcoholic problem we have entered upon one of the saddest and most heart-rending chapters in human history. It is made more tragic by the fact that we have a mercenary class among us who, for the sake of gain, continue the destruction of all that is highest and noblest in life; who stop not at robbing their victims of health, reason, or life itself so long as they can satisfy their conscienceless greed for gain.

The awful havoc played by alcohol upon the mentality of our race is almost beyond computation. For every one person committed to our asylums twenty are injured, their moral sense lowered, and their capacity for work lessened. In the report of the Morning-side Asylum, Edinburgh, for the year 1903, Dr. Clouston states: "Alcoholic insanity goes steadily up. This year no less than 42% of our men and 18% of our women had excess of alcohol assigned as the cause of insanity."

But let us come nearer home and read the British Columbia blue books. The report of the Public Hospital for the Insane at Westminster for 1911 gives alcohol as the great cause of insanity. In that year we sent sixty cases of alcoholic insanity to the asylum, and during the two years following ninety-seven more. Besides this we sent an additional two hundred and seventy-nine, classified under the heading of heredity. Knowing the effects of alcoholic degeneration "unto the third and fourth generation," we are justified in stating that alcohol would reasonably claim a large proportion of these cases. These figures give but a faint glimpse of the dire results of our policy of loosely dealing with this nerve poison. The best of our men and women are being degraded, ruined, and slain while the politician sneers, the dealer gets the profits, and the taxpayer pays the bill.

When we consider that the abnormal mentality manifested by an intoxicated individual is in reality temporary insanity, it requires no stretch of imagination to appreciate the fact that prolonged indulgence would tend to a greater degree of injury to the brain, and

thus to permanent insanity. Furthermore the dulling of the higher mental powers, the loss of self-control and the brutalizing tendency of continuous drinking predisposes too often to the acquirement of serious diseases, one of which is responsible for sixty per cent of the death rate among the male insane, according to a recent report of our Provincial Asylum.

Without going beyond British Columbia to prove the case we are convinced that the burden of mental wreckage caused by alcohol is beyond computation.

Its Relation to Crime

"If sifted, nine-tenths of the crime of England and Wales could be traced to drink."—The Lord Chief Justice of England.

When one considers the devastating effect of alcoholic poison upon the delicate nerve centres, producing various forms of disease and interfering so disastrously with the normal brain action as to dethrone reason and swell the overflowing insane asylums with inmates, we have no hesitancy in admitting that from an alcoholized brain incapable of moral considerations and ordinary judgment, the descent from alcohol to crime is direct and logical. This opinion is intensified by the fact proved by recent investigators in criminology that the greater proportion of criminals are mentally defective, and their criminal acts are too often but the result of their inability to determine the recognized standard of rectitude of action, and to develop sufficient self-control to restrain themselves when under the influence of passion or when exposed to temptation.

In corroboration of the close association of liquor and crime the following is submitted: Of two hundred male offenders convicted of murder or grave homicidal attempts in England and Wales during the year 1903, the number of cases in which the criminals were of alcoholic habits numbered 158, and in 120 of these, or sixty per cent of the whole series the criminal act was directly due to alcoholism. In a larger group of 500 cases of less serious crime, chiefly aggravated assaults, eighty-two per cent were attributed to alcohol.

A few visits to our city police court would be the best means of convincing those who are skeptical as to whether liquor stands as a causative factor of crime. The folly of giving weak individuals the so-called vaunted privilege of "British Liberty" to make themselves temporarily insane and become a nuisance to themselves and society is clearly exemplified. These people are martyrs to the alcoholic gospel of "personal liberty," that false and pernicious doctrine, to get crazy drunk, and do an unlimited amount of damage.

It has been stated by those who make profits either directly or indirectly from the sale of alcohol, that in areas under license law there is less crime than in certain other areas under prohibition. In

relation to this it is well to remember that while "figures never lie," it has been shown again and again that liars can figure. Those states of the Union that have been quoted as very wicked and at the same time very dry, are those in which there has been for many years an illiterate class, as in the mountainous regions of West Virginia or in the Negro states of the South, particularly Tennessee and Georgia. These have been contrasted with the more progressive northern states, a most unjust comparison.

How are these states dealing with the "awful burden of crime due to prohibition of alcoholics?" Not by lessening restrictive measures but by making enactments more stringent. West Virginia, by a majority of 92,000, voted to place prohibition in its state constitution. Georgia called a special session of its legislature to enact more stringent laws for the enforcement of prohibition, and prohibited liquor advertising in the state. Tennessee has every political party pledged to prohibition, and the people regularly elect a governor who stands staunch for the enforcement of prohibitory law.

The attempt to dissociate liquor and crime is made chiefly by moral criminals, whose one thought is mercenary interest, and that at the expense of reason, life, or Empire.

Relation to Heredity

"Alcohol strikes a man, not only in his own person but in his descendents. As stated in different terms, "the fathers have eaten sour grapes and the children's teeth are set on edge."

The detrimental effect upon the children of parental indulgence has ceased to be questioned. It is evident that the children owe the presence of low moral sins and vicious tendencies to the development of various forms of nervous diseases.

A man may think he has the right to squander his life in dissipation, but when he is confronted with the fact of parentalism his responsibility assumes a different character. He is then held morally responsible for the physical and mental equipment of the next generation. And woe to him if through lack of self-restraint or unbridled appetites he forges a defective link in the chain of life which connects the past with the future.

Biology knows only one unforgiven sin. That is any act of ours which will render the lives of our children less complete. Parental alcoholism too often denies to children their birthright of vitality and vigor and gives a childhood of degeneration, disease, and potential criminality. Mr. Collier, of the Vancouver Detention Home, states that the majority of delinquents come from drunken homes.

Out of 20,147 children examined by the New York School Board, of those having drinking parents, 53 per cent were dull, while of

those having abstaining parents, only 10 per cent were dull. Out of the number examined 3,711 were traced through three generations. Of those with drinking parents 77 per cent were dull, of those with three generations of abstaining parents only 4 per cent were dull.

I need only remind you of what was said long ago of those who made "one of these little ones to offend." Well might Oliver Wendell Holmes say that a man should be very careful in the selection of his ancestors.

Relation to Efficiency

The demand of today is for efficiency, for men who can "deliver the goods." The twentieth century merchant, manufacturer or banker wants nothing to do with inefficiency. Is he "fit" is the first problem of life. If that is not satisfactorily solved, life becomes a failure. Scientific investigation and experience have shown that alcohol is one of the most potential causes of inefficiency, and consequently one of the great factors of failure to get the best out of life.

The individual who habitually uses alcoholics is apt to develop changes in his organs, and especially the kidneys and nerve system which cause a depression of their activity, giving less energy and leading too often to a carelessness of detail in business. Subsequently he develops signs of mental weakness, sometimes dullness and tendency to make unreasonable errors. This condition, with the frequent lapse of memory, makes the individual undesirable to employers. The rapid tendency of the railroad companies to demand total abstinence from their employees is an indication of the appreciation of the fact that the alcoholic habit lessens their usefulness.

Mr. Lief Jones, M.P. (England), says: "If the Government would stop the sale of drink you would get an increase of fifteen to twenty per cent in the production capacity of the workers. Twelve hundred men out of about twelve thousand at Cammell Laird's, Liverpool, alone were absent all day on Monday. They were spending their wages in the drink shops."

What of Kitchener's appeals for abstinence from intoxicating drinks? Admiral Jellicoe and Lord Charles Beresford unite in advocating temperance as a factor in naval efficiency. In a speech delivered at Gibraltar, November 16th, 1911, Sir John Jellicoe said: "In the navy the three qualities upon which efficiency mainly depends are discipline, straight shooting and endurance, and temperance undoubtedly tends greatly to the promotion of all of these qualities."

Listen to the patriotic call from the Home Land to all men

serving the Empire:

"It has been proved by the most careful scientific experiments, and completely confirmed by actual experience in athletics and war, attested by Field Marshal Lord Roberts, Field Marshal Lord Wolseley and many other army leaders that alcoholic drink:

- "1. Slows the power to see signals.
- "2. Confuses prompt judgment
- "3. Spoils accurate shooting.
- "4. Hastens fatigue.
- "5. Lessens resistance to disease and exposure.
- "6. Increases shock from wounds.

"We, therefore, most strongly urge you for your own health and efficiency, that, at least so long as the war lasts, you should become total abstainers.

"(Signed:) Thomas Barlow, M.D., F.R.S., K.C., V.O. Pres. Col. Phys., to the King; Frederick Treeves, F.R.C.S. surgeon to the late King; C. J. H. Evatt, M.D. Surgeon General, R.A.M.C.; Victor Horsley, F.R.C.S., F.R.S., Captain R.A.M.C. T.P.; G. Sims Woodhead, M.D., F.R.S., Lieut.-Col. R.A.M.C. T.F."

The strain of battle clasps hands with the results of scientific investigation and writes the doom of alcohol "weighed in the balances and found wanting."

Relation to Military Life

This aspect of the question is of special importance at a time when the integrity of the Empire, the permanence of our institutions, the safety of our homes depends upon the physical strength and endurance of those giving themselves for the world's welfare and progress. In previous articles the effect of alcohol upon the various parts of the body has been dealt with to show sufficiently that what is detrimental, dangerous and disease-producing to our civil life, cannot be of advantage in military life.

Admiral Sir George King Hall, K.C.B., speaking at Manchester but a short time ago said:

"The grog ration should be abolished in the navy." When Commander-in-Chief of the Australian station he found that 75 per cent of the courts-martial and the warrants for punishment had their root cause in drink. As to the loss of efficiency due to alcohol, some interesting experiments were made in H.M.S. Natal not long ago. It was found that the shooting efficiency of the men was very much better before than after the issue of the grog ration.

"As one who had served from cadet to admiral in all climates and circumstances, he could personally testify to the advantages of abstinence from alcohol as tending to make for health, efficiency, and clearness of intellect. Macaulay's saying was as true now as

ever, "That the right of a nation to its morality is infinitely higher than the right of a trade to its wealth." The public must be educated to the great evil that was sapping away so much of the vitality of the nation, and increased pressure brought to bear on the Government to face the question more determinedly and whole-heartedly than in the past, and to more effectively control the liquor traffic."

From Sir Victor Horsley's Book I quote: "Men say that brandy makes privation more endurable. No word of that is true. It is also a fable that when one takes spirituous drinks it relieves his fatigue. All that is true is that the drinker does not measure the extent of his danger, and on that account disdains it, even if he is cowardly by nature. In earlier times when the method of fighting was to run down the antagonist by a wild dash, alcohol probably had its effect. But modern scientific warfare has other features to reckon with. Tranquility, cold-blooded deliberation, iron endurance, a steady hand, a clear eye, a quick decision are the qualifications that the warrior of today must possess in order to make the rifle in his hand a formidable weapon. To remain hour after hour under cover and coolly with the sharp-shooter eye await the cautious approach of the enemy, that is the business that requires actual courage, but not that drunken tumbling into danger with which one whose brain is clouded by the use of alcohol enters into battle. The thing is not to under-estimate danger, but to recognize it, by foresight to diminish it, and if that is not possible to meet it coolly."

May I also call attention to the target experiments in the Swedish army. The results briefly stated were: "When the men were given two-thirds of a glass of brandy thirty minutes before firing and an equal amount in punch on the evening before, the result was three hits out of thirty shots, while on the abstinent days the results were twenty-four hits out of thirty."

Comments on these statements is unnecessary, but are we not justified in asking why should our brave boys who are responding to the call of duty to sacrifice themselves for the purification of the world, be rendered less efficient because mercenary interests have succeeded in influencing those in authority to make it easy for our troops to obtain liquor.

Its Relation to Longevity

Although long life and length of days is by no means of as much importance as the manner in which we spend our days, it is for us a matter of sufficient importance to give us some little interest in the question of the prolongation of life, and in those factors which militate against our reaching the desired goal of fullness of days.

Dr. Millard, medical health officer of Leicester, England, in his

report for the year 1902, says: "Speaking as a medical officer of health, I can say that if I were given the choice of the abolition on the one hand of the evil of drink, on the other hand of all the other various preventable influences adversely affecting the public health on which medical officers are at present concentrating their efforts, I would choose unhesitatingly, the abolition of drink as being the greater by far, than all the others combined."

Professor Allbutt, in speaking of the increased risk that an insurance takes with regard to those in the drink trade, says: "It is customary to add 50 per cent extra for such dangerous occupations as the drink trade, even if classed "A," by the medical examiner; but it is probably wiser to follow the rule of the more cautious officers and absolutely decline to accept proposals in such cases."

The Registrar General's report states that the publican's chances of premature death is three times greater than that of a gardener. Let our friends of the M.P.A. answer why.

The net results as to the advantage which a total abstainer has as to longevity were stated before the Institute of Actuaries. Out of every one hundred only forty-four reach seventy years. Out of every one hundred total abstainers fifty-five reach that age. Stated in different terms by Professor Fischer, of Yale: "If a man is an abstainer at twenty years of age his expectancy is sixty-four years; if he is a temperate drinker his expectancy is fifty-one years." He thus pays the penalty of his temperate drinking by losing thirteen years out of his life. Does it pay?

The statistics of life insurance companies point to the same conclusion. The prospects of life like the prospects of good health are seriously diminished by alcoholic indulgence.

Considering all the facts at our disposal we are compelled to conclude that moderate drinking has a most injurious influence on health and life, and that the best practice, both in the interests of health and morality, of personal development, or national progress, consists in the avoidance of all alcoholic drinks as a beverage.

Relation to Citizenship

Who constitutes a true citizen? One who has the welfare of his country at heart, who places the good of the community and the progress of his country before personal advancement. This is what thousands of our citizens are today doing at the front. Could we not emulate the example and make some little sacrifice for our country while we stay at home? Surely while the danger hovers nigh, while our flag is being baptized in the blood of our noblest and best, is there not a duty for us at home? While they freely give up their lives, their all, should we not be willing to relinquish what some may consider a luxury, when in that luxury lurks all that devital-

izes and vitiates our manhood. The call today is to sacrifice for Empire. Let me call those who are not called to the trenches, who have no part in the gory fields of Flanders, let me call you to, not less patriotism, but to higher aspirations and greater sympathy for humanity. This is a patriotism not expressed in the waving of banners nor in the terms of martial music—a loyalty without the smoke and din of battle, a bravery required for home duty to our fellows, our children, and to those yet to follow, that we may make their pathway brighter and their lives fuller.

There is no true patriotism which is not sensitive to national sin. There must be a realization of the danger impending as well as a glorification of national privilege. This is the true perspective of the patriot. This is the duty of the citizens in regard to this matter of alcohol. We have shown that whenever, however, wherever, by whomsoever tested; whether it be a matter of muscle, brain, economics or efficiency, the universal verdict has been "weighed in the balances and found wanting." The result of scientific findings, of hospital and asylum experience, and of laboratory results, clasp hands with the stress and strain of war, and write the doom of alcohol. With all this evidence before us our duty is plain. "Choose ye this day whom ye will serve." Shall it be selfishness and mercenary interests which have bolstered up the liquor traffic or will it be the common good which shall determine our actions. When this supreme question came before the King he faced it like one of Royal Blood. The question was—the liquor interests, or Empire? By his actions he virtually said: "As for me and my house we will serve the Lord." It was a notable example of Christian discipleship as stated by St. Paul in that memorable declaration of the highest type of gentlemanly conduct. "I will neither eat meat nor drink wine, nor anything whereby my brother stumbleth, or is offended, or is made weak." Can we do better than follow his example? Are we really loyal if we do not?

Proprietary Medicines

A few years ago there appeared in the City of Leeds, England, a statement signed by fifty-eight medical men warning the public against the use of so-called medicated wines. The results from the use of these nostrums were such as to lead to a select committee of the House of Commons being appointed for the purpose of inquiring into their composition, and the effects of their use. The British Medical Journal also sounded a note of warning regarding the giving of these wines to children, since they contained such a very small amount of nutriment and such a large amount of alcohol. It went on to say that by the use of these wines the alcoholic habit may be encouraged or established, and that it was a mistake to sup-

pose that they possessed any high nutritive value. The "Lancet" says: "The idea that malt can be combined serviceably with wine is a delusion and a snare."

The percentage of alcohol in some of these wines as shown by the Middlesex county analyst follows:

Bovril Wine 20%.

Wincarnis 19%

Bendel's Wine 20%.

Vibrorica 19%.

Panopeptone 20%.

Lydia E. Pinkham's 20%.

Most of the preparations contain about double the amount of alcohol found in ordinary claret, and the dose recommended equals one wine glass of whisky per day. One preparation called "Nogermo," specially recommended as a sure cure for severe colds contained 58% of alcohol.

We can now easily understand why the alcoholic habit can be unconsciously formed by the use of these "tonic wines," whose only active ingredient is alcohol, and we only need to see the display of these "mockers of mankind" in the show windows of many of our city drugstores to appreciate the amount of damage done by the consumption of alcohol concealed under the guise of proprietary medicines. The British Journal of Inebriety gives the following instance of the pernicious effect of these nostrums:

"A lady who was an ardent temperance worker, said: 'I would not allow wine or spirits into my house, but when I see the girls tired and dull I send to the chemist's for some coca wine and give them a glass and it does them good.' She was terribly grieved when her youngest daughter became a confirmed drunkard and ended her days in the asylum."

